



**Data Quality Assessments – Questions and Answers**  
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**Q. What is the purpose of this document?**

A. This informal primer on the data quality assessment (DQA) process attempts to answer actual and anticipated questions from USAID operating units on this sometimes confusing topic. Much of the information comes from ADS 203.3.5 that serves as the agency's rule book on data quality. There is also information on real world issues regarding the DQA, some of it drawn from actual data quality assessments and Inspector General audit reports of mission data quality.

**Q. What is the organizing format?**

A. This document is grouped into three categories of questions.

- ADS/ANE Bureau Guidance – content and format of DQAs
- Experience of other missions – especially with DQAs prepared by contractors
- The role of auditors and the consequences of poor data management

**Q. What is the most important point to take away?**

A. Documenting the DQA should be integrated into ongoing program management. While the DQA can be contracted out, it should not be necessary if a Mission utilizes program spot checks and other techniques to regularly assess data quality.

***ADS Guidance***

**Q. What is the purpose of a data quality assessment?**

A. According to the ADS, the purpose of a data quality assessment (DQA) is to ensure that the Operating Unit and strategic objective (SO) Team are aware of the strengths and weaknesses of their performance data and are aware of the extent to which the data integrity can be trusted to influence management decisions. A data quality assessment of each selected performance indicator helps validate the usefulness of the data. (Data quality standards cover quantitative and qualitative performance data.)

**Q. What does the ADS mandate regarding DQAs?**

A. "Data reported to USAID/Washington for Government Performance and Results Act (GPRA) reporting purposes or for reporting externally on Agency performance must have had a data quality assessment at some time within the three years before submission." ADS 203.3.5.2

**Q. Do Program Component Common Indicators need to have DQAs?**

A. Yes, since they are used for reporting externally on Agency performance.

**Q. Are DQAs required for data that are not reported to USAID/Washington?**

A. No. Managers are not required to do data quality assessments on all performance indicators they use. However, managers should be aware of the strengths and weaknesses of all indicators.

**Q. What are the five key criteria for data quality mentioned in the ADS?**

A. Operating Units should ensure that the data in the performance management plan (PMP) for each SO are measured against five data quality standards (abbreviated V-I-P-R-T).

**a. Validity.** Data should clearly and adequately represent the intended result. While proxy data may be used, the Operating Unit must consider how well the data measure the intended result. Another key issue is whether data reflect a bias such as interviewer bias, unrepresentative sampling, or transcription bias.

**b. Integrity.** Data that are collected, analyzed, and reported should have established mechanisms in place to reduce the possibility that they are intentionally manipulated for political or personal reasons. Data integrity is at greatest risk of being compromised during data collection and analysis.

**c. Precision.** Data should be sufficiently precise to present a fair picture of performance and enable management decision-making at the appropriate levels. One key issue is whether data are at an appropriate level of detail to influence related management decisions. A second key issue is what margin of error (the amount of variation normally expected from a given data collection process) is acceptable given the management decisions likely to be affected. In all cases, the margin of error should be less than the intended change; if the margin of error is 10 percent and the data show a change of 5 percent, the Operating Unit will have difficulty determining whether the change was due to the USAID activity or due to variation in the data collection process. Operating Units should be aware that improving the precision of data usually increases the cost of collection and analysis.

**d. Reliability.** Data should reflect stable and consistent data collection processes and analysis methods over time. The key issue is whether analysts and managers would come to the same conclusions if the data collection and analysis process were repeated. Operating Units should be confident that progress toward performance targets reflects real changes rather than variations in data collection methods. When data collection and analysis methods change, the PMP should be updated.

**e. Timeliness.** Data should be timely enough to influence management decision-making at the appropriate levels. One key issue is whether the data are available frequently enough to influence the appropriate level of management decisions. A second key issue is whether data are current enough when they become available.

**Q. What if the data does not meet all of these criteria?**

A. The ADS acknowledges that “in some cases, performance data will not fully meet all five standards.” If this is the case, the known data limitations should be documented.

**Q. What does the ADS say about the format of a DQA?**

A. The ADS allows significant leeway as to a DQA’s format. It states only that operating units should:

- Review data collection, maintenance, and processing procedures to ensure that the procedures are consistently applied and continue to be adequate.
- Identify areas for improvement if possible.
- Retain documentation of the assessment in the Operating Unit’s performance management files and update the information within three years. Documentation may be as simple as memoranda of conversations with data sources and other informed officials.

**Q. Is there a standard template for formatting a DQA?**

A. The Performance Management Toolkit, which is the Agency's official guidance on developing a performance management plan (PMP), contains an annex (Worksheet 7: Data Quality Assessment Checklist, page 91) that guides operating units through all the necessary and suggested elements of a DQA.

[http://www.synergyaids.com/apdime/mod\\_3\\_design/ext\\_doc/USAID%20Performance%20Management%20Toolkit.pdf](http://www.synergyaids.com/apdime/mod_3_design/ext_doc/USAID%20Performance%20Management%20Toolkit.pdf)

This checklist will assist when the SO team conducts both initial and periodic data quality assessments. However, the full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

**Q. What does the ADS say about conducting assessments of data from secondary sources?**

A. For data from secondary sources, (including implementing partners, government counterparts, and international agencies), the Operating Unit should focus the data quality assessment on the apparent accuracy and consistency of the data. The ADS recognizes that the data are not under USAID control and the Operating Unit, therefore, may not have the right to audit or investigate the quality of data in depth.

**Q. What are some recommended ways to conduct DQAs of secondary data?**

A. • Operating Units can compare central office records and the records kept at field site(s). Operating Units should consider visiting a broad range of sites; the point is to assess whether reports accurately reflect what occurs in the field.

- If the secondary data come from periodic reports or service statistics, the Operating Unit should review the data to ensure that what is being reported is accurate.
- The Operating Unit can conduct regular meetings with other development partners to gain an appreciation of how accurate the data are and how much credence can be placed in the figures cited. The Operating Unit can request a briefing on the data collection and analysis procedures, including procedures to reduce error.
- If an Operating Unit provides technical assistance to a government ministry to improve data collection and analysis, the Operating Unit may be in a good position to assess the quality of the data.

**Q. Can Operating Units report on an indicator without a DQA if they plan on conducting a DQA within the upcoming year?**

A. Technically no. If the Operating Unit has not done a DQA at the time of the Annual Report, it should fill in the comment box with “no DQA.” However, Operating Units can do a DQA after the Annual Report and update their performance data when they submit their FY 2008 Resource Request in February.

**Q. Does the ADS acknowledge that data might be too costly to collect?**

A. According to ADS 203.3.5, “there is always a trade-off between the cost and the quality of data. Operating Units should balance these two factors to ensure that the data used are of sufficiently high quality to support the appropriate level of management decisions. Performance data should be as complete and consistent as management needs and resources permit.”

**Q. What if data collection has been contracted out?**

A. Some operating units have contracts with outside organizations to collect data. If this is the case, the data quality assessment should focus on the written procedures and training for cross-

checking data. The Operating Unit should ensure that the organization has the technical capacity to collect data of appropriate quality, as evidenced by the following

- Written procedures are in place for data collection;
- Data are collected from year to year using a consistent collection process;
- Data are collected using methods to address and minimize sampling and non-sampling errors;
- Data are collected by qualified personnel and personnel are properly supervised;
- Duplicate data are detected;
- Safeguards are in place to prevent unauthorized changes to the data; and
- Source documents are maintained and readily available.

**Q. How can an Operating Unit ensure a partner provides accurate data from the beginning?**

A. Requests for proposals (RFPs) for contracts, cooperative agreements, and grants should include standards for data quality in the reporting requirements. USAID should ensure that, wherever possible, the data reporting requirements contained in agreements signed with partners are consistent with the nature of the normal operational activity of the partners. This will help ensure that partners have the ability to provide valid and reliable primary data.

**Q. What guidance does USAID provide on data quality assessments?**

A. The key document is the ADS itself, especially section 203.3.5.

<http://www.usaid.gov/policy/ads/200/203.pdf>

The Performance Management Toolkit, referenced earlier:

[http://www.synergyaids.com/apdime/mod\\_3\\_design/ext\\_doc/USAID%20Performance%20Management%20Toolkit.pdf](http://www.synergyaids.com/apdime/mod_3_design/ext_doc/USAID%20Performance%20Management%20Toolkit.pdf)

The CDIE Tips series includes a document called “Guidelines for Indicator and Data Quality.”

[http://pdf.dec.org/pdf\\_docs/PNACA927.pdf](http://pdf.dec.org/pdf_docs/PNACA927.pdf)

***Experience from Other Missions***

**Q. Are there examples of DQAs contained in the Development Experience Clearinghouse?**

A. Yes. By going to [www.dec.org](http://www.dec.org) and searching for “data quality assessments,” one can find eight documents. They include DQAs for USAID Missions in Ecuador, Ghana, South Africa, Brazil, and Macedonia. It is important to note, however, that most of the DQCs found in the DEC were prepared by the Checchi/Louis Berger Joint Venture, PPC’s primary evaluation contractor until 2005, and provide a greater degree of detail than required. Operating Units do not need to contract out the DQA.

**Q. Are there currently firms on contract with USAID to assist with DQA?**

USAID Indefinite Quantity Contracts (IQC) for evaluation (including DQAs) are currently being competed.

**Q. What is the usual level-of-effort for consultant-drafted DQAs?**

A. In a typical DQA, prepared by Checchi/Louis Berger Joint Venture (USAID-Ecuador), a two-person TDY team visited the Mission for 3 weeks. They interviewed USAID officials at all levels related to each SO as well as the staffs of all Implementing Partners. The DQA Team spent a total of five days in the field observing SO activities and facilities, interviewing partner field staff, reviewing field documentation, and interviewing activity beneficiaries. The DQA

Team then spent five days synthesizing its findings and recommendations, writing them up, and presenting them to USAID/Ecuador officials. The team assessed the quality of 26 indicators from all five strategic objectives (SOs) at both the SO and intermediate-result (IR) levels.

**Q. What are some of the problems uncovered in consultant-drafted DQAs?**

A. The DQAs written by the Checchi/Louis Berger Joint Venture teams read somewhat like evaluations of the Missions' PMPs and data collection processes. Among the problems cited are:

- Lack of precision in gathering of data. It was recommended that data gathering and reporting should be detailed in a concise manual or handbook, which describes in plain and clear language the procedures for collecting, reporting and storing data.
- Broad and weak definitions contained in the PMP may prompt partners to adopt their own operational definitions consistent with both their regular operations and the broad USAID PMP framework. As a result, there may be several different definitions of key terms in a PMP. Data collected for each of these definitions will be different from each other making it difficult for USAID to aggregate data at a higher level.

***The Role of Auditors***

**Q. Is a DQA auditable, and if so, by whom?**

A. The USAID Office of Inspector General (OIG) conducts and supervises audits and investigations of the programs and operations of USAID programs and Operating Units. It reports to USAID and Congress about problems and deficiencies in programs and operations, as well as the necessity for, and progress of, corrective actions. One of OIG's strategic goals is to promote improvements in the way that USAID manages for results. This includes USAID's processes for planning, monitoring, and reporting on program activities, including Operating Units' compliance with the requirement for DQAs.

**Q. How does the Inspector General determine whether an audit is required?**

A. The OIG, which is currently working on its 2007 Audit Plan, may decide to conduct an audit of a program based on the size or perceived risk of the program. Audit decisions are made after consulting with officials within USAID, GAO, Congress, etc.

**Q. What does the Inspector General look for with respect to DQA?**

A. First, whether there is one. Second, whether it meets the standards of a proper DQA.

**Q. What are some of the ways data quality is addressed in OIG Audits?**

A. In February 2003, the OIG completed a worldwide audit of HIV/AIDS programs, which included fieldwork in Global Health's Office of HIV/AIDS and at eight USAID overseas missions (Cambodia, India, Nigeria, Rwanda, Senegal, South Africa, Uganda, and Zambia). The audit found that all eight missions needed improvements in two areas:

- Planning, conducting, and documenting data quality assessments, and
- Improving performance-monitoring plans.

**Q. How specific will OIG audits get?**

A. In one example, in an audit of a Mission's microfinance program, the OIG found that one indicator (number of borrowers) fell short of its target by 21 percent, while another indicator (number of repeat borrowers) exceeded its target by 2 percent. According to the OIG, Mission

officials were unaware that they had fallen short of their targeted number of borrowers because they had not assessed the quality of data reported to them by microfinance institutions. Consequently, the OIG reported that the “Mission had inadvertently reported inaccurate microfinance results.”

In another example, in 2004, the IG in its Report to Congress said that USAID/Russia “must notify [one of its partners] of the problems identified with data quality and require that future quarterly reporting include consistent and comparable data related directly to [its] activities.” Monitoring and evaluation recommendations are generally chosen for subsequent follow-up by the OIG. In the Russia case, the OIG later determined that the Mission had taken action to eliminate these problems.

The OIG can be quite critical if documentation is poor. According to a 2004 OIG audit of one Mission in Africa, “documentation in the Monitoring and Evaluation specialist’s files showed that he made nine visits to observe partner activities between June 1999 and October 2001. However, the file did not contain reports for any trips in 2002 or 2003. According to the Monitoring and Evaluation specialist, he made additional site visits between 1999 and 2001, as well as during 2002 and 2003, but did not routinely document his visits. He told the auditors he would often brief the team orally after the trip or use emails to communicate the results of the trip, but these emails were not maintained in the program files. Additionally, although the contract for one of the key partners in the program required at least quarterly contacts or visits, the Cognizant Technical Officer (CTO) for the contract acknowledged while phone contacts or meetings might have occurred, he did not document the contacts and that in the past two years, he had made only two site visits to observe the partner’s activities.”

**Q. What is the role of the General Accountability Office (GAO)?**

A. When GAO conducts specific audits of USAID programs, usually it is a) because of a request from the chair or ranking minority member of a House or Senate committee, or b) because specific legislation authorizes GAO to conduct such an audit. For example, in 2003 GAO conducted a review of USAID’s micro-enterprise development program, including an audit of data collection and reporting methods. This was based on a request from Congress regarding that program.

The frequency of audits can depend on a) how often the Congress requires GAO to conduct a review, or b) if legislation is passed that specifically requires GAO to review a program every so many years.

**Q: What are some to the things an Operating Unit can do to protect itself from an unfavorable audit?**

A. The data quality assessment does not have to be a complicated formal process. Data quality assessments should be systematic and built into the structure of an Operating Unit’s program management. This means taking a checklist on project visits and counting the number of desks provided to a school or looking through partners’ files for their data on the number of people trained. While DQAs can be conducted as part of a formal evaluation and assessment process, data quality assessments are valid as long as the Mission is checking its data by talking with partners, looking at their files, going to project sites and verifying results, etc. The important thing is that these routine data quality assessments are recorded and put into the official files.